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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/834,660	04/12/2001	Luan C. Tran	MI22-1637	6625

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EXAMINER

SCHILLINGER, LAURA M

ART UNIT PAPER NUMBER

2813

DATE MAILED: 01/30/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/834,660

Applicant(s)

TRAN

Examiner

Laura M Schillinger

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on 12 April 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 21-30 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 21-30 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☒ The proposed drawing correction filed on 12 April 2001 is: a) ☒ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☒ Interview Summary (PTO-413) Paper No(s). 5.
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ 6) ☐ Other:

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DETAILED ACTION

Examiner's Amendment

B

✓
Cancel claims 8-20 and 31-50.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention, thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) do not apply to the examination of this application as the application being examined was not (1) filed on or after November 29, 2000, or (2) voluntarily published under 35 U.S.C. 122(b). Therefore, this application is examined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

Claims 21-30 are rejected under 35 U.S.C. 102(e) as being anticipated by Krautschneider et al ('591).

In reference to claim 21, Krautschneider et al teaches a method comprising:

Forming two series of FETs over a substrate (Col.9, lines:25-35), one being isolated from adjacent devices by STI (Col.6, lines: 15-20), the other having active area widths greater than

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lum (Col.4, lines: 20-35) and ,the one series being formed to have active area widths less than 1 um to achieve lower threshold voltages (TVs) than the other of the series (Col.6, lines: 35-45- teaching the correlation between the trench width and channel depletion width).

In reference to claim 22, Krautschneider et al teaches wherein the TVs for the 2 series of FETs are defined by a common channel implant (Col.6, lines: 20-30).

In reference to claim 23, Krautschneider et al teaches wherein the threshold voltages for the two series of FETs are defined by a common channel implant, the implant being the only channel implant which defines the TVs for the two series of FETs (Col.7, lines: 15-20).

In reference to claim 24, Krautschneider et al teaches wherein the TVs for the two series of FETs are defined by one or more common channel implants (Col.6, lines: 20-30 and Col.7, lines:15-20).

In reference to claim 25, Krautschneider et al teaches wherein the TVs for the two series of FETs are defined by one or more common channel implants, the common channel implants being the only channel implants which define the TV for the two series of FETs (Col.7, lines:15-20).

In reference to claim 26, Krautschneider et al teaches a method of forming two series of FETs over a substrate (Col.9, lines:25-35), one being isolated from adjacent devices by STI (Col.6, lines: 15-20), and achieving different TVs by varying the active widths at least one series having

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active area widths less than 1um (Col.4, lines: 20-35 and Col.6, lines: 35-45- teaching the correlation between the trench width and channel depletion width).

In reference to claim 27, Krautschneider et al teaches wherein the TVs for the 2 series of FETS are defined by a common channel implant (Col.6, lines: 20-30).

In reference to claim 28, Krautschneider et al teaches wherein the threshold voltages for the two series of FETs are defined by a common channel implant, the implant being the only channel implant which defines the TVs for the two series of FETs (Col.7, lines: 15-20).

In reference to claim 29, Krautschneider et al teaches wherein the TVs for the two series of FETs are defined by one or more common channel implants (Col.6, lines: 20-30 and Col.7, lines:15-20)..

In reference to claim 30, Krautschneider et al teaches wherein the TVs for the two series of FETs are defined by one or more common channel implants, the common channel implants being the only channel implants which define the TV for the two series of FETs (Col.7, lines:15-20).

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Wu ('251) and Krautschneider et al ('458) teach similar structures.

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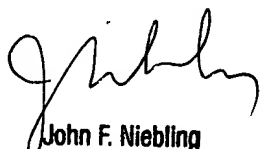
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Laura M Schillinger whose telephone number is (703) 308-6425.

The examiner can normally be reached on M-F 7:00 -4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Charles Bowers can be reached on (703) 308-2417. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 308-7722 for regular communications and (703) 308-7722 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-1500.

LMS
January 22, 2002


John F. Niebling
Supervisory Patent Examiner
Technology Center 2800